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PROGRESS OF AN ERTS-1 PROGRAM FOR LAKE ONTARIO AND ITS BASIN

Fabian C. Polcyn and Thomas W. Wagner, *Environmental Research Institute of Michigan, Ann Arbor, Michigan*

ABSTRACT

A multisdisciplinary team of scientists from Canada and the United States are currently studying the use of ERTS-1 data for application to hydrological and limnological problems of Lake Ontario and its Basin. The results of this research are contributing to the objectives of the International Field Year for the Great Lakes (IFYGL)–an intensive synoptic study of the 32,000 sq mile Lake Ontario Basin designed to increase our understanding of a major lake system and the techniques required to manage it.

In addition to conventional image interpretation of the MSS data, eight contiguous ERTS frames, obtained in mid-August 1972, are being processed for enhancement and classification of significant hydrological and limnological features. Processing to date includes level slicing, ratioing of spectral bands, and classification of features. The additional information available from processed data, are being primarily directed to the evaluation of elements of the terrestrial water balance, but important sedimentation and water movement properties may also be observed and charted from these data.

Rapid processing of ERTS data by analog computer techniques are expected to make the periodic enhancement and classification of the large amount of ERTS data (8 frames) economically feasible.